12 Dots

~~1 2 3 4 5 6 7 8 9 10~~ 11

~~12~~ 6 12

EPA-R6-2013-010211

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
6608 Hornwood Drive
Houston, Texas 77074

SUBJECT: Transmittal Memo - Compliance Monitroing Report(s)

DATE: 29 DEC 1980

RECEIVED DEC 31 1980 EPA REGION 6 S&A DIV.

FROM: Glenn A. Stanton, Inspector
Houston Branch, 6ASAHF

TO: Director, S&A Division, 6ASA

THRU: Chief, Field Operations Section, Houston Branch, 6ASAHF

THRU: Chief, Houston Branch, 6ASAH

Reviewed by 6ASAC for Stanton 1/13/81

A compliance Monitoring inspection was conducted on Dec. 23 '80 (Dates) at the following location:

NAME: Koppers Co., Inc., Organic Materials Group

ADDRESS: Old Industrial Road, ARMCO Steel Gate #1, Houston, Tex.

NPDES Permit #: _____ AQCR: _____

Type of Facility: Federal [ ] Municipal [ ] Non-Municipal [X]

Compliance Monitoring Reports Attached: (Check appropriate space)

Water		Air		O&M	SPCC	TSCA	RCRA
NPDES	[ ]	SIP	[ ]	Form 7500-5 [ ]	[ ]	[ ]	[X] and
Form 3560-3	[ ]	NSPS	[ ]				Preliminary
Majo	[ ]	NSR	[ ]				Assessment
Minor	[ ]	PSD	[ ]				
NOD	[ ]	NESHAP	[ ]				
CEI	[ ]	Demo.	[ ]				
CSI	[ ]						
129 PP	[ ]						
Bioassay	[ ]						
Salmonella	[ ]						
PCB	[ ]						

Comments: The plant staff is apparently unfamiliar with much of RCRA's regulations; relying heavily on corporate developed compliance preparations which are largely incomplete at this time. Apparent violations include the following:

(a) Manifest system only partially in compliance
(b) Marking & placarding of containers used for storage-shipping was inadequate
(c) Accumulation time not dated on containers.
(d) No training plan yet developed for personnel handling hazardous wastes
(e) No waste analysis plan yet been prepared.
(f) No written inspection schedule yet been prepared.
(g) No written operating record yet been started.

EPA Form 1320-6 (Rev. 6-72)

ORIGINAL

RCRA SITE INSPECTION ACTIVITY REPORT:

9 DEC 1980

Facility (Name & Location): Koppers Co., Inc.

Type of Facility: Gen. _____ Gen/TSD ✓ TSD _____

Inspector (Name): Glenn A. Stankis

Date of Inspection: Dec. 23, 1980

Time of Inspection: From: 1030 Hours, To: 1545 Hours

Pre-Inspection Activities:	1 hours
Administrative Preparation	
Entry to Facility	
Pre-Inspection Discussion	
Inspection Activities:	5 hours
Waste Analysis Plan	
Contingency Plan	
Manifests, Records	
Sampling	
Post Inspection Activities:	4 hours
Post Inspection Discussion	
Report Preparation	
SUBTOTAL	10 hours
TRAVEL:	2 hours
TOTAL:	12 hours

RCRA INSPECTION

I. SITE IDENTIFICATION

Sa2 (12/29/80)

A. Site Name: Koppers Co., Inc., Organic Materials Group

B. Street (or other identifier): Old Industrial Road ARMCO Steel Gate #1

C. City: Houston

D. State: Texas

E. Zip Code: 77015

F. County Name: Harris

G. Site Operator Information

1. Name: (Same as A.)

2. Telephone Number: (713) 453-5446

3. Street: P.O. Box 96150

4. City

5. State

6. Zip Code

H. Site Description: Distills coal tar (from coke ovens) to produce creosote, pitch, enamels, etc.

I. Type of Ownership

____ 1. Federal ____ 2. State ____ 3. County ____ 4. Municipal ✓ 5. Private

J.

✓ 1. Generator ____ 2. Transporter ✓ 3. Treatment ✓ 4. Storage ____ 5. Disposal

INSPECTION INFORMATION

A. Principal Inspector Information

1. Name: Glenn A. ~~Hunter~~, 12/24/80

2. Title: Chief, Field Operations Section

3. Organization: EPA Houston Branch

4. Telephone No. (area code & No.): (713) 226-5761

B. Inspection Participants

John N. Waltenbaugh - Plant Engr

John "Al" Carnes - Asst. Plant Mgr

Jordan Dern - Environment Coordinator, Koppers Co., Pittsburgh, Pa.
Phone: (412) 227-2207

ORIG.

RCRA COMPLIANCE INSPECTION REPORT
GENERATORS CHECKLIST

Section A - EPA Identification No.

1. Does Generator have EPA I.D. No.? ✓ Yes ___ No

   a. If yes, EPA I.D. No. TXD008089021

Section B - Manifest

1. Does generator ship waste off-site? ✓ Yes ___ No

   a. If no, do not fill out Sections B and D.

   b. If yes, identify primary off-site facility(s) Use narrative explanations sheet.) See pg. 5

2. Does generator use Manifest? ✓ Yes ___ No

   a. If no, is generator a small quantity generator? ~~Yes~~ ~~No~~ N/A
      1. If yes, does generator indicate this when sending waste to a T/S/D facility ~~Yes~~ ~~No~~ N/A

   b. If yes, does manifest include the following information?

      1. Manifest Document No. ✓ Yes ___ No
      2. Generators Name, Mailing Address, Telephone No. ✓ Yes ___ No
      3. Generator EPA I.D. No. ✓ Yes ___ No
      4. Transporter(s) Name and EPA I.D. No. ✓ Yes ___ No
      5. a. Facility Name, Address and & EPA I.D. No. ___ Yes ✓ No (See pg. 5)
         b. Alternate Facility Name, Address and EPA ID NO. ___ Yes ✓ No
         c. Instructions to return to generator if undeliverable? ___ Yes ✓ No
      6. Waste information required by DOT - Shipping name, quantity, (weight, or vol.) containers (type and number.) ✓ Yes ___ No
      7. Emergency Information (optional) (special handling instructions, phone no.) ___ Yes ✓ No

(8) Is the following certification on each manifest form? ___ Yes ✓ No

This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation and the EPA.

(9) Does Generator retain copies of Manifests? ✓ Yes ___ No

If yes, complete a through e.

a. (1) Did generator sign and date all manifests? me dated 12/10/80 ✓ Yes ___ No
(2) Who signed for generator? Name L. McKay Title Shift Supvr

b. (1) Did generator obtain handwritten signature and date of acceptance from initial transporter? ✓ Yes ___ No
(2) Who signed and dated for transporter? Name Peter Simeon Title Unk.

c. Does generator retain one copy of manifest signed by generator and transporter? ✓ Yes ___ No

d. Do returned copies of manifest include facility owner/operator signature and date of acceptance? ✓ Yes ___ No

e. Does generator retain copies for 3 years? ✓ Yes ___ No

Section C - Hazardous Waste Determination

1. Does generator generate solid waste(s) listed in Subpart D (List of Hazardous Waste)? ✓ Yes ___ No

a. If yes, list wastes and quantities (include EPA Hazardous Waste No.) U-051 Creosote spillage + sand
K-035 Sludge from WWTP ∅

2. Does generator generate solid waste(s) that exhibit hazardous characteristics? (corrosovity, ignitability, reactivity, EP toxicity) ___ Yes ✓ No

a. If yes, list wastes and quantities (include EPA Hazardous Waste No.) _____

b. Does generator determine characteristics by testing or by applying knowledge of processes? Knowledge

1. If determined by testing, did generator use test methods in Part 261, Subpart C (or Equivalent)? ~~Yes~~ ~~No~~ N/A

a. If equivalent test methods used, attach copy of equivalent methods used.

∅ None yet removed from WWTP, according to plant representative.

3. Are there any other solid wastes generated by generators? ✓ Yes ___ No

   a. If yes, did generator test all wastes to determine non-hazardous characteristics? ___ Yes ✓ No

      1. If no, list wastes and quantities deemed non-hazardous or processes from which non-hazardous waste was produced? (Use additional sheet if necessary.)

Pitches, Enamels (spills + sand) ≃ 700 Cu Yd/Yr.
Trash (i.e. wood, paper, empty drums) ≃ 24 Cu Yd/wk.

Section D - Pre-Transport Requirements

1. Does Generator package waste in accordance with 49 CFR 173 178, and 179? (DOT requirements) ✓ Yes ___ No

2. a. Are containers to be shipped leaking or corroding? ___ Yes ✓ No
   b. Use sheet to describe containers and condition. Condition was O.K.
   c. Is there evidence of heat generation from incompatible wastes in the containers? ___ Yes ✓ No

3. Does the generator use DOT labeling requirements in accordance with 49 CFR 172? ~~___ Yes ___ No~~ N/A

4. Does the generator mark each package in accordance with 49 CFR 172? ___ Yes X No

5. Is each container of 110 gallons or less marked with the following label? ~~___ Yes ___ No~~ N/A

   Label saying: HAZARDOUS WASTE - Federal Law Prohibits Improper Disposal. If found, contact the nearest policy or public safety authority or the U.S. Environmental Protection Agency.

   Generator's Name and Address _____

   _____

   Manifest Document Number _____ _____

6. Does generator have placards to offer to transporters? ___ Yes ✓ No See pg. 5

7. Accumulation Time

   a. Are containers used to temporarily store waste before transport? (~10 days) see pg. 5 ✓ Yes ___ No

1. If yes, is each container clearly dated? Also, fill out rest of No. 7 (Accum. Time) ___ Yes ✓ No

b. 1. Does generator inspect containers for leakage or corrosion? (265.174 - inspections) ✓ Yes ___ No
2. If yes, with what frequency? When brought into plant & when carried out

c. Does generator locate containers holding ignitable or reactive waste at least 15 meters (50 feet) from the facility's property line? (265.176 - Special Requirements for Ignitable or Reactive Wastes) ___ Yes ___ No N/A

NOTE: If tanks used, fill out checklist for tanks. {Wastewater Treatment Tanks (e.g. Clarifiers, grit chambers, etc.) have been temporarily exempted as per FR of 11/17/86.

d. Are the containers labeled and marked in accordance with Section D 3, 4, & 5 of this form? ___ Yes ___ No N/A

NOTE: If generator accumulates waste on-site fill out checklist for General Facilities, Subparts C and D. Included.

e. Does generator comply with requirements for personnel training? (Attach checklist for 265.16 - Personnel Training). ___ Yes ✓ No

8. Describe storage area. Use photos and narrative explanation sheet.
See pg. 6 and Attachment AA

Section E - Recordkeeping and Records

1. Does generator keep the following reports for 3 years?

a. Manifests and signed copies from designated facilities? ✓ Yes ___ No
b. Annual reports ~~Yes~~ ~~No~~ N/A
c. Exception Reports ~~Yes~~ ~~No~~ N/A
d. Test results ~~Yes~~ ~~No~~ N/A

2. Where are records kept (at facility or elsewhere)? Facility
3. Who is in charge of keeping the records? Name Bonnie O'Gorman Title Office Supr.

Section F - Special Conditions

1. Has generator received from or transported to a foreign source any hazardous waste? ___ Yes ✓ No
a. If yes, has he filed a notice with the Regional Administrator? ___ Yes ___ No
b. Is this waste manifested and signed by Foreign consignee? ___ Yes ___ No
c. If generator transported wastes out of the country has he received confirmation of delivered shipment? ___ Yes ___ No

FACILITY _____

DATE _____

EPA ID NO. _____

RCRA COMPLIANCE INSPECTION REPORT
NARRATIVE EXPLANATIONS

SECTION B PART 1.b.

Solid wastes are shipped in a metal bin by Browning - Ferric Co. to their disposal facility at Calcasieu, La.

SECTION B PART 2.b.5.

Facility name and address not shown in disposal facility portion of manifest, but is specified in generator's section of manifest. EPA I.D. number for disposal facility not shown anywhere on manifest (as per shipment dated 12/10/80)

SECTION D PART 6 & 7a.

6.) Transport waste bin equipped with placards; however, placard only on the 2 sides and not the 2 ends as required by DOT 172.504, Table 2

7.)a.) Waste bins are metal boxes with flip up covers. (See photo in Attachment AA). These boxes contain ~ 20-25 yd.^{3}

FACILITY _____

DATE _____

EPA ID NO. _____

RCRA COMPLIANCE INSPECTION REPORT
NARRATIVE EXPLANATIONS

SECTION D PART 8

(a) Waste transport bins are used to contain spilled creosote (and other coal tar fractions) which has been mixed with sand at the spill site. This mixture is shoveled into wheelbarrows or other receptacles and then emptied into the bins. Bins are stored on a concrete slab.

SECTION _____ PART _____

SECTION _____ PART _____

RCRA COMPLIANCE INSPECTION REPORT
TSD FACILITIES CHECKLIST

Section A - General Facility Standards

1. Does facility have EPA Identification No.? ✓ Yes ___ No

A. If yes, EPA I.D. No. TXD008089021
If no, explain ___

2. Has facility received hazardous waste from a foreign source? ___ Yes ✓ No

A. If yes, has he filed a notice with the Reg. Admin. ~~___ Yes ___ No~~ N/A

Waste Analysis

3. Does facility maintain a copy of the waste analysis plan at the facility? (See btm. of pg. 7) ___ Yes ✓ No Ø

A. If yes, does it include

(1) Parameters for which each waste will be analyzed? ___ Yes ___ No

(2) Test methods used to test for these parameters? ___ Yes ___ No

(3) Sampling method used to obtain sample? ___ Yes ___ No

(4) Frequency with which the initial analysis will be reviewed or repeated? ___ Yes ___ No

(5) (for off-site facilities) Waste analyses that generators have agreed to supply? ~~___ Yes ___ No~~ N/A

(6) (for off-site facilities) Procedures which are used to inspect and analyze each movement of hazardous waste including:

a. Procedures to be used to determine the identity of each movement of waste? ~~___ Yes ___ No~~ N/A

b. Sampling method to be used to obtain representative sample of the waste to be identified? ~~Yes~~ ___ No N/A

4. Does the facility provide adequate security through

A. 24-hour surveillance system? (e.g. television monitoring or guards) at plant entrance ✓ Yes ___ No

OR

B. (1) Artificial or natural barrier around facility (e.g. fence or fence and cliff)? ___ Yes ___ No
Describe _____
AND

(2) Means to control entry through entrances (e.g. attendant, television monitors, locked entrance, controlled roadway access)? ___ Yes ___ No
Describe _____

General Inspection Requirements

5. Does the owner/operator maintain a written schedule at the facility for inspecting: (see btm. of pg. 7) Ø

a. Monitoring equipment? ___ Yes ✓ No Ø

b. Safety and emergency equipment? ___ Yes ✓ No Ø

c. Security devices? ___ Yes ✓ No Ø

d. Operating and structural equipment? ___ Yes ✓ No Ø

e. Types of problems of equipment?

1. malfunction ___ Yes ✓ No Ø

2. operator error ___ Yes ✓ No Ø

3. discharges ___ Yes ✓ No Ø

6. Does the owner/operator maintain an inspection log? ___ Yes ___ No

A. If yes, does it include:

(1) Date and time of inspection? ___ Yes ___ No

(2) Name of inspector? ___ Yes ___ No

(3) Notation of observations? ___ Yes ___ No

(4) Date and nature of repairs or remedial action? ___ Yes ___ No

B. Are there any malfunctions or other deficiencies not corrected? (Use narrative explanation sheet). ___ Yes ___ No N/A

Personnel Training

7. Does the owner/operator maintain Personnel Training Records at the facility? ___ Yes ___ No
How long are they kept? _____

A. If yes, do they include:

(1) Job title and written job description of each position? ___ Yes ___ No

(2) Description of type and amount of training? ___ Yes ___ No

(3) Records of training given to facility personnel? ___ Yes ___ No

Requirements for Ignitable, Reactive or Incompatible Waste

8. Does facility handle ignitable or reactive wastes? ___ Yes ___ No

A. If yes, is waste separated and confined from sources of ignition or reaction, (open flames, smoking, cutting and welding, hot surfaces, frictional heat) sparks (static, electrical or mechanical), spontaneous ignition (e.g. from heat producing chemical reactions) and radiant heat? ___ Yes ___ No N/A

1. If yes, use narrative explanations sheet to describe separation and confinement procedures.
2. If no, use narrative explanation sheet to describe sources of ignition or reaction.

B. Are smoking and open flame confined to specifically designated locations? ✓ Yes ___ No
In offices + parking areas

C. Are "No Smoking" signs posted in hazardous areas? ___ Yes ✓ No
not where bin(s) placed

9. Check containers

A. Are containers leaking or corroding? ___ Yes ✓ No

B. Is there evidence of heat generation from incompatible wastes? ___ Yes ✓ No
(Use narrative explanations sheet to describe condition of containers.)

Section B - Preparedness and Prevention

1. Is there evidence of fire, explosion or contamination of the environment? ___ Yes ✓ No

If yes, use narrative explanations sheet to explain.

2. Is the facility equipped with

A. Internal communication or alarm system? ✓ Yes ___ No

(1) Is it easily accessible in case of emergency? ✓ Yes ___ No

B. Telephone or two-way radio to call emergency response personnel? ✓ Yes ___ No

C. Portable fire extinguishers, ~~fire control equipment~~ spill control equipment and decontamination equipment? ✓ Yes ✓ No
NONE

(1) Is this equipment tested to assure its proper operation? ✓ Yes ___ No

D. Water of adequate volume for hoses, sprinklers or water spray system? ✓ Yes ___ No

(1) Describe source of water Hess Terminal (neighboring plant)

3. Is there sufficient aisle space to allow unobstructed movement of personnel and equipment? ✓ Yes ___ No

4. Has the owner/operator made arrangements with the local authorities to familiarize them with characteristics of the facility? (layout of facility, properties of hazardous waste handled and associated hazards, places where facility personnel would normally be working, entrances to roads inside facility, possible evacuation routes.) ___ Yes ✓ No

5. In the case that more than one police and fire department might respond, is there a designated primary authority? ✓ Yes ___ No
   a. If yes, list primary authority Galena Park + Houston Fire Dept Houston Fire Dept

6. Does the owner/operator have phone numbers of and agreements with State emergency response teams, emergency response contractors and equipment suppliers? → CIMA, the Channel Industries Mutual Aid pact. ✓ Yes ___ No
   Are they readily available to all personnel? ✓ Yes ___ No

7. Has the owner/operator arranged to familiarize local hospitals with the properties of hazardous waste handled and types of injuries that could result from fires, explosions, or releases at the facility? ___ Yes ✓ No

8. If State or local authorities decline to enter, is this entered in the operating record? ~~___ Yes ___ No~~ N/A

Section C - Contingency Plan and Emergency Procedures

1. Is a contingency plan maintained at the facility? ___ Yes ✓ No

   a. If yes, is it a revised SPCC Plan? ~~___ Yes ___ No~~

2. Is there an emergency coordinator on site at all times? ✓ Yes ___ No
   Distillation Supervisor

Section D - Manifest System, Recordkeeping and Reporting

1. Does facility receive waste from off-site? ___ Yes ✓ No

   a. If yes, does the owner/operator retain copies of all manifests? ~~___ Yes ___ No~~ N/A

(1) Are the manifests signed and dated and returned to the generator? ___ Yes ___ No

(2) Is a signed copy given to the transporter? ___ Yes ___ No

2. Does the facility receive any waste from a rail or water (bulk shipment) transporter? ___ Yes ✓ No

a. If yes, is it accompanied by a shipping paper? ___ Yes ___ No

(1) Does the owner/operator sign and date the shipping paper and return a copy to the generator? ___ Yes ___ No

(2) Is a signed copy given to the transporter? ___ Yes ___ No

3. Has the owner/operator received any shipments of waste which were inconsistent with the manifest? (manifest discrepancies) ___ Yes ✓ No

a. If yes, has he attempted to reconcile the discrepancy with the generator and transporter? ___ Yes ___ No
1. If no, has Regional Administrator been notified? ___ Yes ___ No

4. Does the owner/operator keep a written operating record at the facility? (See btm. of pg. 7) ___ Yes ✓ No Ø

A. If yes, does it include:

(1) Description and quantity of each hazardous waste received? ___ Yes ___ No N/A

(2) Location and quantity of each hazardous waste at each location? ___ Yes ___ No N/A

(3) Records and results of waste analyses? ___ Yes ___ No

(4) Reports of incidents involving implementing of the contingency plan? ___ Yes ___ No

(5) Records and results of required inspections? ___ Yes ___ No

(6) Monitoring, testing or analytical data? ___ Yes ___ No

(7) Closure cost estimates and for disposal facilities post-closure cost estimates? (Not effective until May 19, 1981.) ___ Yes ___ No

5. Has the facility received any waste (that does not come under the small generater exclusion) not accompanied by a manifest? ___ Yes ✓ No

a. If yes, has he submitted an unmanifested waste report to the Regional Administrator? ___ Yes ___ No

---

Ø Items designated in this manner indicate that information was supplied the inspector over the phone by the company's ~~headquarter~~ headquarters (Pittsburgh, Pa → (412) 227-2207) environmental manager, Mr. Jordan Dern. Plant's staff apparently is unfamiliar with much of RCRA's regulations and they depend on corporate developed compliance preparations. Many items not yet prepared.

~~CHEMICAL, PHYSICAL~~ & BIOLOGICAL TREATMENT
CHECKLIST Constructed 1979

NOTE: Applies to treatment in other than tanks, surface impoundments, and land treatment facilities.

1. Check treatment process and equipment:

   a. Are there any leaks, corrosion or other failures evident? ___yes ✓no
   If yes, describe. _____

2. Is the process a continous feed system? ✓yes ___no

   a. If yes, is it equipped with a means to stop waste inflow (e.g. waste feed cut-off system or by-pass)? ✓yes ___no
   System shutdown each weekend

3. Is waste analysis information maintained in the operating record? ~~yes~~ ~~no~~ N/A
   No sludge yet removed from treatment system

4. If a hazardous waste is received which is substantially different from any hazardous waste previously treated at the facility, are the following obtained? ~~yes~~ ~~no~~ N/A

   a. Waste analyses and trial treatment tests (eg bench scale)? ~~yes~~ ~~no~~
   b. Written documented information on similar treatment of similar waste? ~~yes~~ ~~no~~

5. Does the owner/operator inspect the following, where present? ✓yes ___no

   a. At least daily.
      1. Discharge control and safety equipment (eg waste feed cut-off, by-pass, drainage or pressure relief systems)? ✓yes ___no
      2. Data gathered from monitoring equipment (eg pressure and temperature gauges)? ✓yes ___no

   b. At least weekly.
      1. Construction materials of treatment process or equipment to detect erosion or obvious signs of leakage? ✓yes ___no

6. Does the facility maintain a closure plan? (Effective May 19, 1981) ~~yes~~ ~~no~~ N/A

7. Are ignitable or reactive wastes placed in the treatment process? ___yes ✓no

   a. If yes, is the waste treated, rendered or mixed before or immediately after being placed in the treatment process so it no longer meets the definition of ignitable or reactive? ~~yes~~ ~~no~~ N/A
   Describe or attach a copy of the treatment.

WASTE PILES CHECKLIST
(one)

NOTE: Waste piles may also be managed as a landfill.

1. Is the pile containing hazardous waste protected from wind? ✓ yes ___ no

50 Cu. Yd. of "creosote spillage + sand" mixture located inside dike at tank farm

2. Is a representative sample of waste from each incoming shipment analyzed before the waste is added to the pile to determine the compatibility of the wastes? ~~___ yes ___ no~~ N/A

No wastes being added but is being gradually hauled away.

3. Does the analysis include a visual comparison of color and texture? ~~___ yes ___ no~~ N/A

No analysis being made

4. Is the leachate or run-off from the pile considered a hazardous waste? (Effective November 19, 1981) ~~___ yes ___ no~~ Not yet applicable

   a. If yes, is the pile managed with the following?

      (1) An impermeable base compatible with the waste? ___ yes ✓ no
      (2) Run on diversion? ___ yes ✓ no
      (3) Leachate and run-off collection? ✓ yes ___ no

      or

   b. 1. Is the pile protected from precipitation and run-on by some other means? ~~___ yes ___ no~~ N/A

5. Are ignitable or reactive wastes placed in the pile? ~~✓ yes ___ no~~ N/A

   a. If yes, does the addition of the waste result in the waste or mixture no longer meeting the definition? (Use narrative explanation sheet to describe procedure) ~~yes ___ no~~

      or

   b. Is the waste protected from sources of ignition or reaction? ~~___ yes ___ no~~ N/A

      (1) If yes, use narrative explanations sheet to describe separation and confinement procedures.

      (2) If no, use narrative explanations sheet to describe sources of ignition or reaction.

6. Is the pile separated from other sources of reaction by a dike, berm or wall? ✓ yes ___ no

7. Is there evidence of fire, explosion, gaseous emissions, leaching or other discharge? (Use narrative explanation sheet) ___ yes ✓ no

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
6608 Hornwood Drive
Houston, Texas 77074

SUBJECT: Transmittal Memo - Compliance Monitroing Report (Addendum A) DATE:

RECEIVED
JAN 9 1981
EPA
REGION 6
S & A DIV.

FROM: Glenn Stankus, Inspector
Houston Branch, 6ASAHF

TO: Director, S&A Division, 6ASA

THRU: Chief, Field Operations Section, Houston Branch, 6ASAHF (1/2/81)

THRU: Chief, Houston Branch, 6ASAH DLP for

A compliance Monitoring inspection was conducted on 12/23/80 (Dates)
at the following location:

NAME: Koppers Co., Inc. (ARMCO Steel Co. Gate #1)

ADDRESS: Houston, Texas

NPDES Permit #: AQCR: 216

Type of Facility: Federal [ ] Municipal [ ] Non-Municipal [X]

Compliance Monitoring Report Addendum A Attached: (Check appropriate space)

Water		Air		O&M	SPCC	TSCA	RCRA
NPDES	[ ]	SIP	[ ]	Form 7500-5 [ ]	[ ]	[ ]	[X]
Form 3560-3	[ ]	NSPS	[ ]				
Majo	[ ]	NSR	[ ]				
Minor	[ ]	PSD	[ ]				
NOD	[ ]	NESHAP	[ ]				
CEI	[ ]	Demo.	[ ]				
CSI	[ ]						
129 PP	[ ]						
Bioassay	[ ]						
Salmonella	[ ]						
PCB	[ ]						

Comments:

Photos taken during inspection → Attachment AA being sent as addendum to report submitted earlier

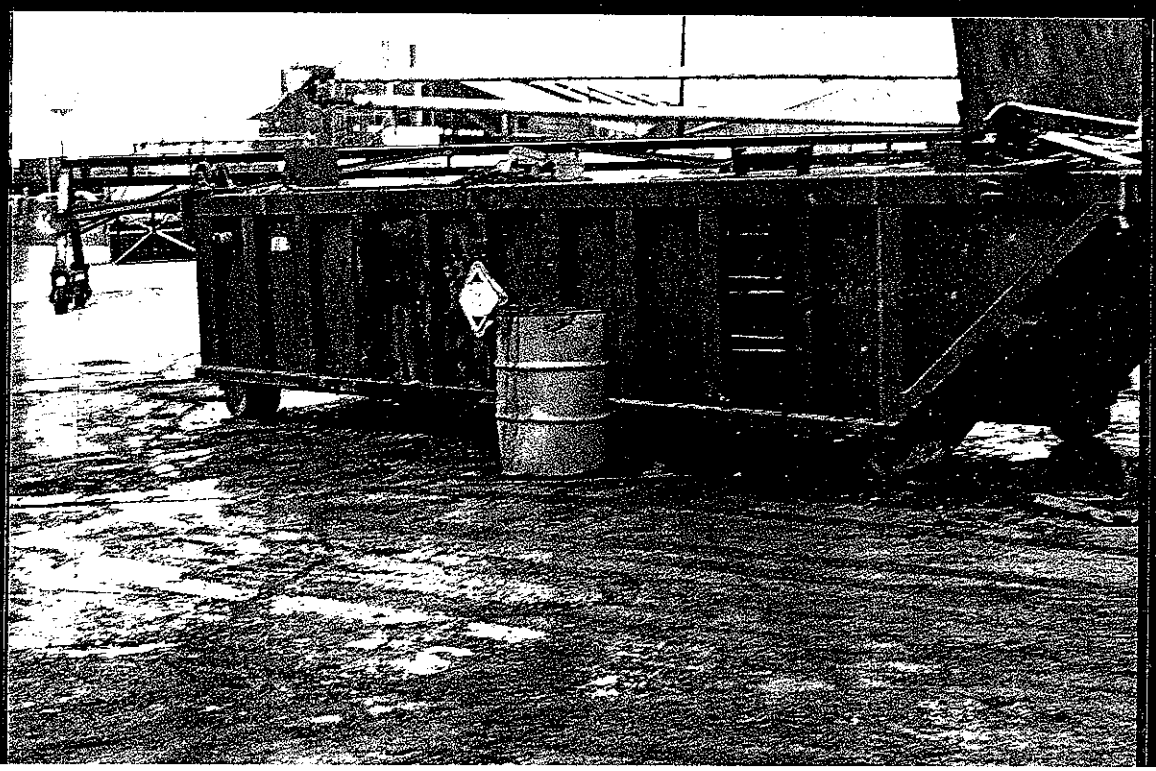
EPA Form 1320-6 (Rev. 6-72)

ORIGINAL

Attachment AA

Koppers Co., Inc. @
ARMCO Steel Co. gate #1
Houston, Texas

Dec. 23 '80
(RCRA Inspection)



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

Region VI

NOV 06 1984

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE

RE: WIBBB0622

Mr. Jordan M. Dern
Manager, Environmental Regulatory
Programs
Koppers Company, Inc.
Environmental Resources Department
Pittsburgh, PA 15219

Dear Mr. Dern:

This letter is in response to delisting petition #0563 submitted by Koppers Company, Inc. of Houston, Texas for wastewater treatment sludges from the production of creosote, presently listed as EPA Hazardous Waste No. K035. I have reviewed the petition and have found that in addition to the analytical data which you intend to supply at a later date, several other points need to be addressed or clarified. Please supply the following information:

(1) Analyze at least four representative samples of the waste sludge for the following constituents: creosote, chrysene, naphthalene, fluoranthene, benz(b)fluoranthene, benz(a)pyrene, inden(1,2,3-cd)-pyrene, benzo(a)pyrene, dibenzo(a)anthracene, and acenaphthalene. Include quality control data, the dates of sampling and analysis, the names and qualifications of the persons conducting the sampling and analysis, the method and equipment used to obtain the representative samples, a description of sample preparation and preservation techniques, the names and model numbers of all instruments used, and a description of the test methods used for each constituent. (If methods from SW-846 Test Methods for Evaluating Solid Waste are used, simply state the method numbers.)

(2) Estimate the amount of total sludge that will be disposed. Will the amount continue to increase over time? (On page 3 of the petition, you estimated the amount of creosote in the sludge. We need to know the total amount of the sludge to be disposed.)

(3) Provide a statement explaining why the samples you will collect will be representative of any constituent

concentration in the waste. I suggest you collect the samples in same manner as that described for the Follansbee, West Virginia facility, namely, collect several samples within a 24 hour period and composite into one sample.

(4) Hydrazine is listed as a constituent of Nalco 7274. It is been determined by the Carcinogen Assessment Group (CAG), to be a substance which poses a potential human cancer risk. It is also included on the Appendix VIII List of Hazardous Constituents in 40 CFR Part 261, and therefore, must be quantified in the waste. To determine the maximum amount of hydrazine present in the waste, samples may be analyzed by an appropriate analytical method or a mass balance may be computed as follows:

[(amount of hydrazine in the product) X (amount of product used within a time period)] / (amount of sludge produced in the same time period)

(5) The information contained on the Material Safety Data Sheet for Nalco 7309 was insufficient. What kind of organic degreasers are present in the product? If any of the constituents in the product are listed on Appendix VIII cited above, they should be quantified in a manner similar to that described for hydrazine.

You stated in the petition that in the future, you anticipate stabilizing the biological sludge with a dry material such as cement kiln before land disposal. If you still intend to pursue this method of treatment and disposal, the sludge samples analyzed for the delisting petition should be treated using the stabilization technique. According to the regulations, if the biological sludge was delisted, then underwent subsequent treatment, the product of the treatment would once again be considered hazardous. If you prefer that the waste be considered for delisting both before and after treatment, then submit data for the analysis of both stabilized and non-stablized waste.

I hope that this letter suficiently explains the additional information required. If you have any questions, please call me at (202) 382-4690.

Sincerely,

Barbara L. Bush

Barbara L. Bush
Environmental Protection Specialist
Waste Identification Branch (WH-562)

Koppers Company, Inc.
Environmental Resources Department
Pittsburgh, PA 15219, Telephone 412-227-2000

Rec'd 8/7/84

#563

KOPPERS

August 1,1984

Ms. Barbara Bush
Waste Identification Branch
Office of Solid Waste & Emergency Response
United States EPA
Washington, D. C. 20460

SUBJ: Koppers Co., Inc.-Houston, Tx.
EPA I.D.No.TXD008089021-Delist.Pet.

Dear Ms. Bush:

This petition is submitted in accordance with the requirements of 40 CFR 260.20 and 40 CFR 260.22 for the purpose of delisting a particular waste stream which is generated at the subject facility. Section 40 CFR 261.32, Hazardous Waste from Specific Sources, identifies "Wastewater Treatment Sludges from the Production of Creosote" as hazardous waste No. K035. After reviewing the background document which led to the listing of K035 and comparing it to the waste stream which the Koppers' Houston Plant generates, we conclude that the wastewater treatment sludge which is produced at our facility is far different than the waste which the agency seeks to regulate. This petition requests that K035 be delisted as a hazardous waste for the subject facility. Beside addressing the requirements of 40 CFR 260.22 we will also submit information which you requested from our Follansbee Plant in your letter of March 13, 1984 (WIBBB0126). Once this document is reviewed by your office we expect that you will advise us of the specific parameters for which the biological sludge needs to be analysed. We can then proceed to perform the analytical work. In this way we hope to expedite the delisting process as much as possible.

Koppers Company, Inc., operates a coal tar processing facility in Houston, Texas. Coal tar which is received from various coke manufacturers, is processed by distillation, extraction, and blending to produce a variety of products including industrial pitches, roofing products, and several grades of creosote. The wastewater which is generated is comingled with contaminated runoff and is treated before discharge to the Houston Ship Channel under TDWR Permit No. 01034 and NPDES Permit No. TX 0005096. Treatment operations include API separation, oil extraction, equalization, aeration (activated sludge), pH adjustment and activated carbon addition, and clarification.

The waste which is generated by the activated sludge process consists of waste biological organisms at a concentration of about 2% total suspended solids in treated effluent. The quantity of sludge to be wasted is a function of the organic loading on the system, the amount of activated carbon added and the efficiency of settling. Generally, the wastewater treatment plant operates as a "no waste" system, i.e., biological sludge is not intentionally removed from the treatment system. This phenomenon is generally due to low organic loading such that the sludge production is equal to the sludge removed from the system as Total Suspended Solids in the effluent in compliance with

the NPDES Permit. However, we may at some time in the future have to waste the biological sludge. We are taking steps now to delist the sludge to simplify future disposal.

Hazardous waste K035 is evaluated in the Listing Background Document for "Creosote Production" which addresses both "Wastewater Treatment Sludges Generated in the Production of Creosote" and "Process Wastewater from Creosote Production". After reviewing this document we are convinced that the production sludges referred to in the Background Document are not the same as the waste biological sludge generated in our wastewater treatment system. In this regard we raise the following points:

1. Generation - Section II (c) of the background document Waste Generation and Management describes how the production sludge is generated. It states, "creosote wastewater is either discharged to publically owned treatment works (at smaller facilities) or treated on site in holding ponds (at larger plants). Where on-site treatment is utilized, ponds are dredged periodically, giving rise to the second listed waste stream. Based on the prevalent waste disposal practice in the chemical industry, these wastewater treatment sludges are transferred to a landfill for a final disposal. "

   By comparison, our biological sludge is generated in a far different manner. Biological sludge is produced in an activated sludge wastewater treatment process. This process involves the aeration of the wastewater so that biological organisms can decompose the organic compounds into carbon dioxide and water. These microorganisms use the energy released in the decomposition reaction in combination with organics which are present to procreate additional microorganisms. The waste biological sludge which is produced is made up of the excess microorganisms formed in the activated sludge process. It is not as the result of allowing the wastewater to settle.

2. Concentration - Section I.3 of the background document estimates that 1,150 million pounds of creosote and 60 - 115 million pounds of production sludge are produced. Using the data that one pound of creosote is produced from 12 pounds of coal tar and that coal tar typically contains 1.5% water, the quantity of wastewater can be calculated from creosote production.

$$1{,}150 \times 10^6 \frac{\text{lbs creo}}{\text{yr.}} \times \frac{12 \text{ lbs coal tar}}{1 \text{ lb.creo.}} \times 0.015 \frac{\text{gal.water*}}{\text{gal.coal tar}} \times \frac{1 \text{ gal.coal tar}}{8.7 \text{ lbs.coal tar}} =$$

$$23.8 \times 10^6 \frac{\text{gal.wastewater(average)}}{\text{year}}$$

*average

One can obtain the concentration of sludge in the wastewater by the following calculation:

$$\frac{87.5 \times 10^6 \text{ lbs.creo in sludge}^*}{23.8 \times 10^6 \text{ gal.wastewater}} \times \frac{1 \text{ gal.water}}{8.34 \text{ lbs.water}} \times 10^6 \text{ ppm} =$$

440,824 ppm creosote from production sludges in wastewater (average)

*average

Wastewater from production sludge has a creosote concentration of 440,000 ppm (44%). Our biological sludge on the other hand has a concentration of creosote components of less than 1 ppm (0.0001%). There is no rationale for these biological sludges to be regulated in the same manner as the production sludges.

It is also worthwhile to note that the background document on creosote production evaluated both "Wastewater Treatment Sludge from the Production of Creosote" and "Wastewater from the Production of Creosote" as hazardous wastes. The evaluation showed that the treatment sludges should be regulated as a hazardous waste and that the wastewater itself was not hazardous. Our biological sludge contains even less of these toxic compounds than the wastewater itself. Therefore, if the wastewater is not considered hazardous, our biological sludge should not be considered hazardous.

3. Management Practices - In Section III A. 1.(a) of the background document a description of the holding pond is given. It states, "holding ponds may be sited in areas with highly permeable soils or they may lack adequate leaching control features. Further, there may be inadequate cover to impede migration of the waste constituents or inadequate flood control measures to impede washout in the event of heavy rain". It is obvious that the pond being described has natural sediments at the bottom. Our treatment, on the other hand, takes place in a steel tank and a concrete basin which effectively prevents the leaching of contaminants into the ground. The overflow from the basin is controlled to the plant outfall. If an unexpected buildup of biological organisms were to occur, it would be pumped back to the aeration basin. The chance of an uncontrolled overflow is virtually nil.

4. Ecological Effects - We have analysed the biological sludge from this treatment unit as well as others that Koppers operates for three of the polynuclear materials included in the listing of hazardous constituents -- benzo(a)pyrene, benz(a)anthracene and benzo(b)fluoranthene and found that these constituents were present in concentrations of less than 1.0 mg/l. The biological

sludge, when subjected to the leachate test used for EP Toxicity, shows these compounds at less than detectable levels. This is not surprising in light of the observation made in the Background Document that polynuclear compounds are absorbed to sediments (in our case the biological organisms) very tightly and are not likely to be released from the sediments. Although there is little information on the concentrations of these compounds that constitute a hazard the fact that they are below the level of detection in the leachate would suggest minimal environmental impact.

In Section III. a 2 of the background document it is stated, "Since the waste constitutents include benzo(a)anthrance, benz(b)fluoranthene, and benzo(a)pyrene, and creosote which are known carcinogens, substantial environmental harm can result from exposure even in minute concentrations if mismanagement should occur." This statement in the Background Document has been reviewed by Donald J. McGraw, M.D., our Corporate Medical Director. His response is as follows:

"Pursuant to our discussion regarding the subject sludge and Koppers' application for delisting this material as hazardous waste, I would like to offer the following comments. First, I would concur that the constituents of creosote, benz(a)anthracene, benzo(b)fluoranthene and benzo(a)pyrene can be generated in the production of creosote and have at times been detectable in the wastewater treatment sludges from this process. And, these substances are included among those with potential carcinogenicity according to the CAG list. The scientific data available to date, however, do not support the concept that there is an absolute no threshold health effect related to exposure to these compounds. Various PAH's are so pervasive, even ubiquitous, in most Western communities as to deny the possibility of non-exposure to all but the most isolated rural dweller.

"Major sources of contamination include air, water and food, with air being the primary offender, and the respiratory system the avenue of entry upon which the majority of studies attributing carcinogenicity to exposure(s) are based. It has been estimated that the average daily airborne PAH exposure is in the range 0.1 to 1.0 micrograms. In water it is measurable in the .01 - .05 micrograms range, and in food from 1 - 10 ppb (1 - 10 micrograms). Smoking alone has been estimated to result in an average daily BaP exposure of 0.4 micrograms. If these levels were responsible for an excess of various cancers, it is likely that an epidemic would be visible, a situation not corroborated by the best appraisals of such world-renouned epidemiologists as Drs. Doll and Peto.

"In the absence of reliable dose response information for PAH-induced cancer in human beings, predictions of carcinogenic risk often devolve upon models for risk extrapolation. The least supportable of these is the linear one-hit model, and recent studies at the National Institute of Environmental Health Sciences, Biometry and Risk Assessment Program, suggest that non-linear organ-specific kinetics may be more applicable(1). Certainly, considerable refinement of our current level of understanding these processes will be necessary before any assumptions can be rationally entertained with regard to human risk extrapolations. While it is a desirable objective to minimize unnecessary exposure to any potentially harmful substances, it does not seem reasonable to expect industry to achieve lower than ambient environmental levels. The concentrations of these substances in the Follansbee waste water treatment sludge *are at barely detectible levels and do not, consequently, represent a potential for "substantial environmental harm" as suggested by the language in the Federal Listing Background Document."

"Furthermore, the National Academy of Science (NAS) Committee on Pyrene and Selected Analogues prepared a report on Polycylic Aromatic Hydrocarbons: Evaluation of Sources and Effects, which is due to be released soon. According to a summary in the July-August, 1983 NAS News Report, the Committee noted that about 99% of human exposure to PAH is from food and water, "presumably as a result of pollution from soils, irrigation waters, and atmospheric fallout and perhaps from the initial phases of food-processing." However, it added that there is "very little information to implicate diet derived PAHs in any form of clinical pathological condition, despite the high concentrations of these compounds to which humans may be exposed through food contamination."

*Data is not appreciably different for Houston Wastewater Treatment Sludge - JMD.

(1)"Implication of Non-Linear Kinetics on Risk Estimation in Carcinogenesis", David G. Hoel, et al., Science, Vol. 219, 4 March, 1983, pp. 1032 - 1037.

Our biological sludge is so different from production sludge in its 1) method of generation, 2) chemical characteristics 3) method of handling, 4) physical properties and 5) ecological effects that it should not be regulated as production sludge. While we recognize that it would be impossible for the Background Document to define every treatment scheme and every possible type of sludge, the vast difference between the production sludge and biological sludge makes it obvious that the writers of the Background Document did not intend to regulate waste biological organisms in the same manner that production sludges from holding ponds are to be regulated.

40 CFR 260.22 requires a review of the hazards associated with the waste. The criteria for the evaluation are given in 40 CFR 261.11 (a)(3). This section identifies 11 factors to evaluate whether the waste poses a "substantial present or potential hazard to human health or the environment". These will be considered in order.

(i) Nature of Toxicity - The Background Document identifies toxicity through virtually all routes for polynuclear materials, although there is relatively little data to identify the levels at which toxicity occurs. However, as the comments from Dr. McGraw point out polynuclear materials are nearly ubiquitous in our environment including air, water and food. Yet the absence of an excess of various cancers leads one to conclude the low concentrations of these polynuclear materials do not pose an unreasonable health risk.

(ii) Concentration in the Waste - This information will be determined in the next phase of the delisting process.

(iii) Migration - As the Background Document points out these compounds are not easily desorbed from the sediments (in this case the biological organisms). The same conclusion was reached in a study by Reichert, et.al, 1971 (2) which concluded that the reduction of PAH's in the wastewater was not due to biological degredation but to irreversible absorption of PAH's in the sludge.

(iv) Persistence of the Constitutent - This information is contained in the Background Document which states, "the polycylic aromatic hydrocarbons are persistent in nature, especially soils with half-lives for benzo(a)anthrancene and benzo(a)pyrene reported to be 7,000 and 21,000 hours, respectively."

(2) Reichert, J., Hkunte, K.Engelhardt and J. Borneff (1971): Carcinogenic Substances Occurring in Water Soil - XXVII: Further Studies on the Elimination from Wastewater of Carcinogenic Polycylic Hydrocarbons". Archieves and Hygiene and Bakteriology. Vol. 155 Pg.18-40.

(v) The potential to degrade - Studies have shown that the organisms in soil will, after some time, attack and fracture the fused rings of the polynuclear compounds. One of the products of degradation will be phenol. However, since phenol is itself attacked by biological organisms, and since it is a "simplier compound" it will be more easily degraded. Thus it can be concluded that the degradation of creosote compounds will not generate other toxic products.

(vi) Bioaccumulation - Information in the Background Document suggests that polynuclear materials bioaccumulate in living organisms. However, more recent studies have shown that polynuclear compounds are metabolized to a variety of excretory products.(3) This would indicate that these compounds do not bioaccumulate to the extent previously thought.

(vii) Types of Improper Management - The only medium that could be adversely affected by the mismanagement of the waste would be groundwater. However, the low potential of the polynuclear materials to desorb from the sludge as demonstrated in the leachate analysis and the likelihood that any which is desorbed will be quickly reabsorbed by the sediments in the groundwater medium would lead one to conclude that the potential for harmful effects due to mismanagement are small.

(viii) Quantities of waste generated - At this time no waste biological sludge is being generated. When production levels increase, sludge wasting will likely be required. We wish to delist the waste now to simplify future disposal.

(ix) Occurrence of human health and environmental damage - To the best of our knowledge no human health of or environmental damage has occurred as a result of the mismanagement of this waste stream.

(x) Action by other regulatory agencies - To the best of our knowledge no actions have been taken by any other regulatory agency.

(xi) Such other factors - All the pertinent information has been presented above. No other factors are known at this time.

(3) A.W.Pucknat, Editor, Health Impacts of Polynuclear Aromatic Hydrocarbons, Park Ridge, New Jersey, 1981. Pg. 179.

We will address each item in your letter concerning our Follansbee Plant in order.

(1) Crude coke oven tar is the feedstock used to produce two major products for customer sales. They are creosote and a high softening point industrial pitch. There are two distillate fractions which are blended in varying proportions to produce the desired specification for the creosote.

The crude tar is pumped from storage to the dehydrator column where moisture is removed from the tar by pressurized vaporization. The water is condensed and processed through a decanter followed by the wastewater treatment plant. This wastewater stream gives rise to the designation of the biological sludge as a hazardous waste although the wastewater represents only a small part of the wastewater actually treated.

The dehydrated tar is then pumped to the distillation unit. Heat and vacuum are applied to produce a distillate stream called light creosote. Light creosote is a creosote stream which is relatively free of solids.

The bottoms stream from the distillation unit is sent to the pitch unit, which is the final step in distilling crude tar. More vacuum are applied in the pitch still to produce a second distillate stream known as heavy creosote. Creosote becomes more viscous at lower temperatures and eventually reaching semi-solid state at temperatures below 100°F. Both storage tanks and transporting vessels are heated.

The final bottoms stream is known as coal tar pitch and is extremely viscous even at temperatures of 300°F to 400°F. As it cools, it becomes solid and, at ambient temperatures, becomes brittle and exhibits crushing characteristics similar to coal. It is transported to customers as a hot liquid or as a cold solid.

The Houston Plant also blends coal tar distillation products with both asphaltic and coal tar materials to make a variety of products to meet our customer's demand. They are made on a batch basis usually by mixing in tanks. However, due to the viscosity of the materials and the intermediate treatment steps, they are unlikely to reach the biological unit.

(2) The following is a complete list of the raw materials and laboratory chemicals which are used at the Houston Plant that are not coal tar based. Those items marked with (*) are used in processes which do not generate waste water. Their introduction to the treatment system would be only as a result of a spill.

Petroleum Residual Oil
Process Coal - Bituminous
Talc
Hydrated Lime
Activated Carbon
Acetone
Quinoline
Toluene
Xylene
Hydrochloric Acid
Caustic Soda
Sulfuric Acid
Phosphoric Acid - Bionutrient
Glycerine

(3) The production process at the plant is only distillation and blending. Except for some commercial cleaners, there are no solvents, cleaners, or surface preparation agents which are in use at Houston.

There are a number of chemicals which are added to the boilers and cooling towers for various purposes. Since the blowdown from the boilers and cooling towers is to the treatment system these compounds may be in the waste stream. Material Safety Data Sheets are attached for the following compounds:

Nalco	7274	Amines
Nalco	7201	Acrylic Polymer
Nalco	8365	Organic Phosphorous
Nalco	7309	Organic Surfactants
Nalco	7460	Hydrocarbon Based Anti-Foam

(4) We have not, to date, wasted biological sludge nor do we intend to begin as long as the production level remains as is. The purpose of delisting at this time is to simplify the disposal of the excess sludge if and when it becomes necessary. At that time it is likely that the liquid sludge will be stabilized with dry material, e.g., cement kiln dust and landfilled.

(5) The samples of waste biological sludge which are to be analysed will be collected by taking a grab sample off the recycle sludge line. The recycle sludge line transports the sludge which settles in the clarifier back to the aeration tank for reuse. Although the regulations specify composite sampling, this method is more suitable for activated sludge for the following reasons:

1. Biological activity will continue on samples taken early in the compositing period which may create a sludge of a different characteristic than the sludge which is actually in the system.

2. The sludge itself does not change over a 24-hour period. The sludge in our system has been there for a long time. There is no large production of sludge taking place at this time. Sampling by a composite technique will not make the sample more representative than a single grab sample taken during the day.

It should also be noted that the Houston Plant has 100,000 gallons of equalization capacity. The purpose of equalization is to smooth out the operation of the treatment system by reducing the variations in influent composition. This will further mitigate the need for composite sampling.

It is not expected that the characteristics of the waste would vary significantly over the year. The operations at the Houston Plant are not seasonal, but rather steady throughout the year. Thus the influent characteristics remain essentially the same. Neither does the operation of the treatment plant differ appreciably between winter and summer except in the amount of stormwater. The only change that is made is that during periods of extreme cold weather, steam may be introduced to maintain the basin temperature high enough to assure biological activity.The singluar factor that would influence treatment efficiency is the system temperature and we are able to maintain essentially the same temperature on a year around basis.

(6) No sludge is generated at this time.

(7) (provided with analytical package)

(8) (provided with analytical package)

(9) A schematic flow diagram of the biological treatment system is attached. The description is as follows:

a. Decantation - Process wastewater is decanted to remove most of the oil before processing begins. By controlling the temperature in the decanting vessel at the optimum, most of the oil can be removed and returned to process.

b. Equalization - The purpose of equalization is to smooth out the variations in influent wastewater to prevent upsets of the treatment system. The equalization tank that holds nearly seven days of wastewater on the average so that any pollutant or flow peaks in the influent wastewater can be eliminated.

c. API Separation - Wastewater is introduced into the API Separator when the free oils are allowed to separate from the wastewater. Oils heavier than water settle to the

bottom and oils lighter than water float to the top. Both oil streams are removed and returned to process. The wastewater continues to oil extraction.

d. pH Adjustment - Biological treatment works best at a neutral pH. Since our wastewater is usually within that range the pH adjustment is an added precaution to insure pH compliance.

e. Activated Carbon Addition - Granulated activated carbon is added to the treatment process because experience has shown that it offers several advantages:

1. It provides a site for the agglomeration of sludge particles which enhances settling.

2. Activated carbon absorbs organics so if the treatment system becomes temporarily overloaded, the excess organics are absorbed onto the carbon particles.

3. The activated carbon works to reduce foaming in the treatment system and provides better oxygen transfer.

f. Aeration - The wastewater is introduced into the aeration tank where the biological activity takes place. The aeration tank is equipped with a surface aerator that creates turbulance and splashing. This causes the oxygen in the air to be absorbed in the water of the aeration tank. Recycled sludge from the clarifier is introduced to the aerator to provide microorganisms which consume the organics in the wastewater. The aeration tank discharges to the clarifier.

g. Clarification - In the clarification step the treated effluent and biological organisms which overflow from the aeration tank are separated into two streams. The clarifier provides a quiescent zone where the more dense sludge particles separate from the treated effluent. The clarifier also has a skimming mechanism in the case that oils or other floating debris may have been inadvertently introduced into the treatment system. The overflow from the clarifier goes to the outfall. The underflow which is biological sludge is returned to the aeration tank.

(10.) (provided with analytical package.

(11.) (provided with analytical package)

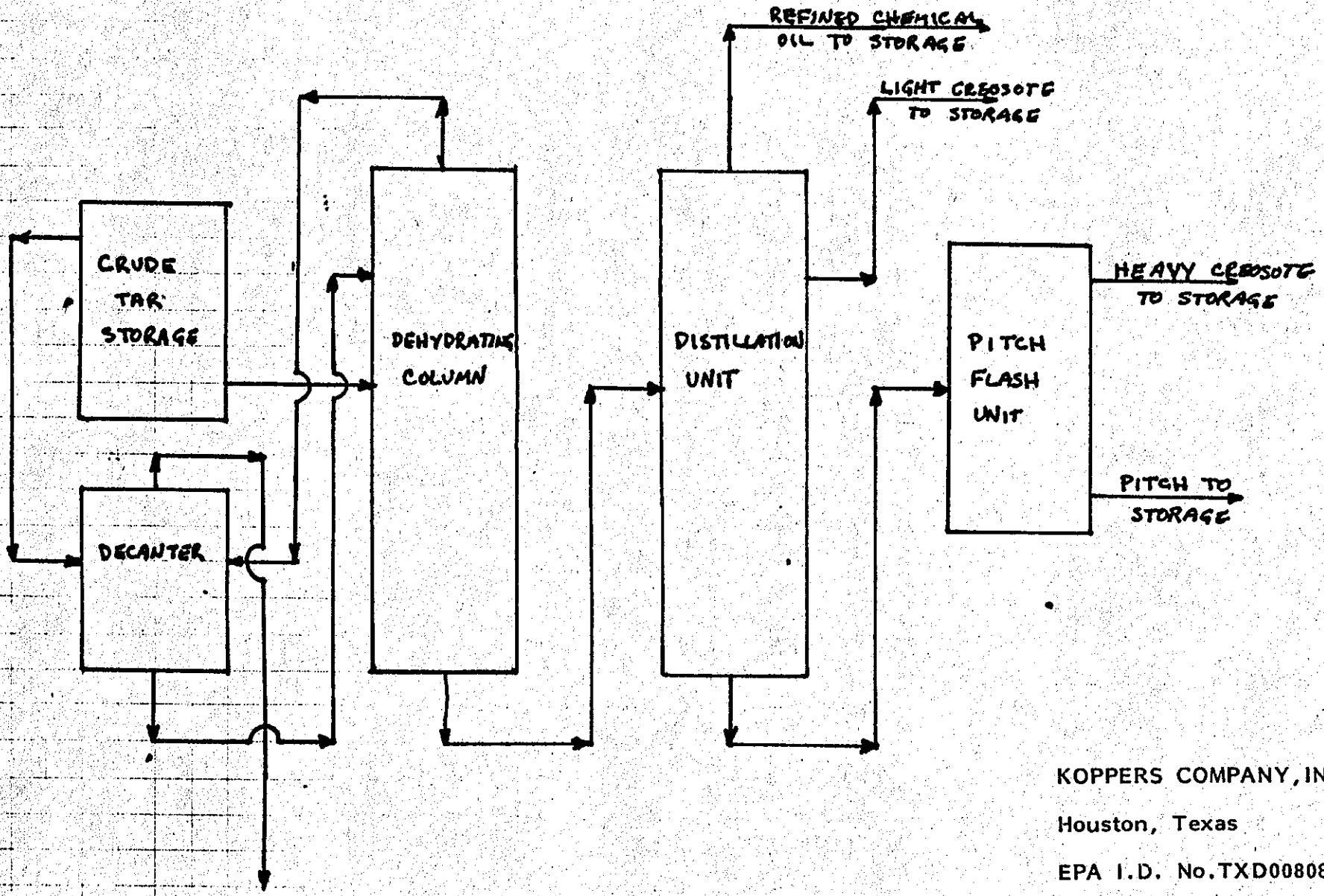
I hope that this submission will provide you with sufficient information to determine what, if any analytical work is required beyond that required in 40 CFR 260.22. If you have any questions, please call me at (412) 227-2207 so that I can expedite our response. We request that you review this information as soon as possible so that we can get on with the analytical work required for the delisting process.

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this demonstration and all attached documents and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate and complete. I am aware there are significant penalties for submitting false information including the possiblity of fine and imprisonment."

Sincerely yours,

Jordan M. Dern, Manager
Environmental Regulatory Programs

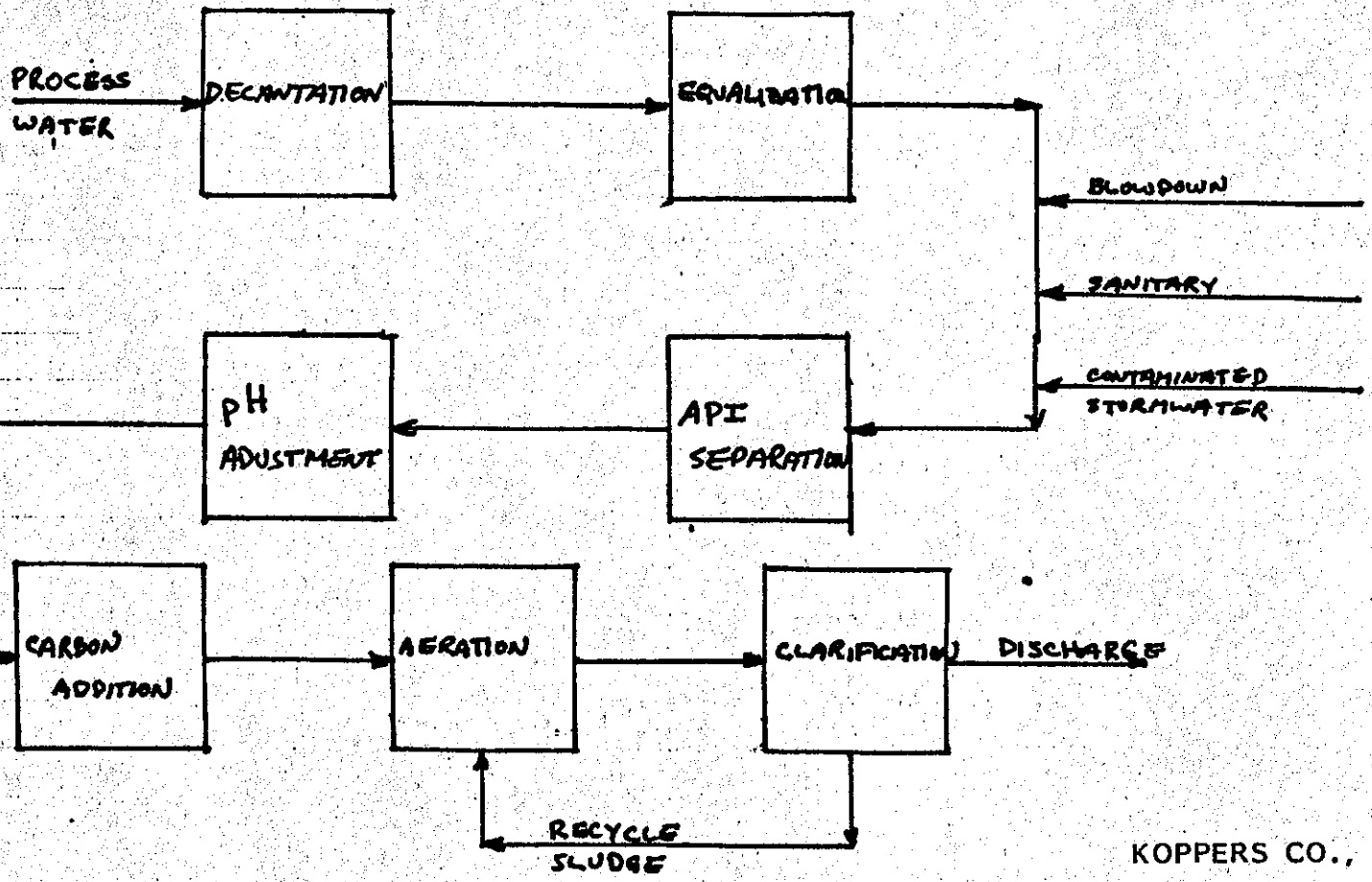
JMD/s



KOPPERS COMPANY, INC.

Houston, Texas

EPA I.D. No. TXD008089021



KOPPERS CO., INC.

Houston, Texas

EPA I.D. No.TXD00809021

#563

NALCO CHEMICAL COMPANY

MATERIAL SAFETY DATA SH

Product Nalco 7274

SECTION 1 – PRODUCT IDENTIFICATION

Trade Name Nalco 7274 Formula No.

Synonyms An aqueous Blend of amines

Chemical Family Organic

SECTION 2 – HAZARDOUS INGREDIENTS

MATERIAL OR COMPONENT	%
Hydrazine	3

SECTION 3 – PHYSICAL PROPERTIES

Boiling Point, 760 MM HG 210°F	~~Melting Point~~ freeze point 13°F
Specific Gravity (H_2O=1) 1.0 @ 60°F	Vapor Pressure 28 Torr @ 77°F
Vapor Density (Air=1)	Solubility in H_2O, % By Wt. Complete
% Volatiles By Vol. 30% @ 77°F	~~Evaporation Rate (Butyl Acetate=1)~~ viscosity 2.9 cps @ 77°F

Appearance and Odor
Clear, colorless to yellow liquid pH (neat) = 11.5

SECTION 4 – FLAMMABILITY AND EXPLOSIVE PROPERTIES

Flash Point (Test Method)
> 200°F (PMCC)

Flammable Limits in Air, % By Vol.	Lower		Upper	

Extinguishing Media
CO_2, Dry chemical, alcohol foam

Special Fire Fighting Procedures
Wear air supplied breathing apparatus

Unusual Fire and Explosion Hazard
Can liberate NOx

SECTION 5 – HEALTH HAZARD DATA

Hydrazine = 1.0ppm OSHA 1978 limit;

Threshold Limit Value
ACGIH TLV (1978) = 0.1ppm, NIOSH recommondation (1978) = 0.03ppm

Effects of Overexposure
Can cause eye and skin burns. May be harmful if absorbed through the skin. Vapors may cause lung and mucous membrane injury. Hydrazine is a suspect carcinogen.

EMERGENCY AND FIRST AID PROCEDURES

Eyes Immediately flush with water for a least 15 minutes. Call a physician.

Skin Immediately flush with water for 15 minutes. Consult a physician.

Ingestion Give large amounts of water. Do not induce vomiting. Call a physician.

Inhalation Remove to fresh air. If not breathing, give artifical respiration, oxygen. Consult a physician.

(Continued on Reverse Side)

MATERIAL SAFETY DATA SHEET

NALCO CHEMICAL COMPANY

Product Nalco 7274

SECTION 6 – REACTIVITY DATA

Stability: Stable ☒ Unstable ☐ Conditions to Avoid

Materials to Avoid: Acids, oxidizing agents

Hazardous Decomposition Products: NOx, CO_2, CO

Hazardous Polymerization: Will Not Occur ☒ May Occur ☐ Conditions to Avoid

SECTION 7 – SPILL OR LEAK PROCEDURES

Steps to Take in Case Material is Released or Spilled: Small spill or leak - wash down with water, wear amine cartridge respirator and prevent skin or eye contact by wearing impervious gloves, rubber boots, face shield and chemical goggles. For large spill wear self contained breathing apparatus, slicker suit, rubber boots and gloves.

Waste Disposal Method: No special methods. Consult local, state, or federal regulations for appropriate compliances.

SECTION 8 – SPECIAL PROTECTION INFORMATION

Type of Respiratory Protection Required: None when used in closed system. Cartridge respirator when opening drum or when small leaks develop.

Ventilation: Local Exhaust ☐; Mechanical (General) ☐; Special (Specify) ☒ ; Other (Specify) ☐

Protective Gloves: Rubber when opening drum or if leaks develop.

Eye Protection: Face shield and goggles when opening drum or when leaks develop.

Other Protective Equipment: Full protection suit and self-contained breathing apparatus for large spills. Protective equipment not necessary during normal operation of closed system.

SECTION 9 – SPECIAL PRECAUTIONS

Handling and Storage Precaution: Store in cool, dry area. Keep container closed tightly when not in use. Do not contact skin, eyes or clothing. Remove and launder clothes before reuse. Discard contaiminated shoes.

Other Precautions: Do not breathe vapors. When used in closed system general ventilation should be adequate. Do not take internally.

Prepared By: [signature] Title: Corporate Toxicologist Date: 5-12-80

Similar to Form OSHA-20

EMERGENCY TELEPHONE NUMBER – (312) 920-1510

MATERIAL SAFETY DATA SHEET

NALCO CHEMICAL COMPANY
2901 BUTTERFIELD ROAD • OAK BROOK, ILLINOIS 60521

Product Transport-Plus 7201

Trade Name Transport-Plus 7201 Formula No.

Synonyms An aqueous solution of an acrylic polymer

Chemical Family Organic

SECTION 2 – HAZARDOUS INGREDIENTS

MATERIAL OR COMPONENT	%
None	

SECTION 3 – PHYSICAL PROPERTIES

Boiling Point, 760 MM HG	Freeze Point 25°F
Specific Gravity (H_2O=1) 1.13 @ 60°F	Vapor Pressure
Vapor Density (Air=1)	Solubility in H_2O, % By Wt. Soluble
% Volatiles By Vol.	Viscosity 30 cps @ 77°F

Appearance and Odor

Light yellow liquid pH (neat) = 4.8 pH (1% sol'n) = 5.8

SECTION 4 – FLAMMABILITY AND EXPLOSIVE PROPERTIES

Flash Point (Test Method)

None

Flammable Limits in Air, % By Vol.	Lower		Upper	

Extinguishing Media

Not applicable

Special Fire Fighting Procedures

None

Unusual Fire and Explosion Hazard

None

SECTION 5 – HEALTH HAZARD DATA

Threshold Limit Value

None established for the product.

Effects of Overexposure

May cause irritation with prolonged contact.

EMERGENCY AND FIRST AID PROCEDURES

Eyes

Flush with water for 15 minutes. Call a physician.

Skin

Wash thoroughly with soap and water.

Ingestion

Do not induce vomiting. Give water. Call a physician.

Inhalation

SECTION 6 – REACTIVITY DATA

Stability: Stable ☐X Unstable ☐ **Conditions to Avoid**

Materials to Avoid Aluminum, copper, copper alloys, mild steel, nickel, neoprene

Hazardous Decomposition Products None

Hazardous Polymerization: Will Not Occur ☐ X May Occur ☐ **Conditions to Avoid**

SECTION 7 – SPILL OR LEAK PROCEDURES

Steps to Take in Case Material is Released or Spilled Contain with absorbent material.

Waste Disposal Method No special method. Consult local, state and federal regulations for appropriate disposal.

SECTION 8 – SPECIAL PROTECTION INFORMATION

Type of Respiratory Protection Required None normally required

Ventilation: Local Exhaust ☐; Mechanical (General) ☐; Special (Specify) _____ Other (Specify) _____

Protective Gloves Rubber **Eye Protection** Goggles

Other Protective Equipment None

SECTION 9 – SPECIAL PRECAUTIONS

Handling and Storage Precaution Keep from freezing. Recommended storage temperature range is 50 – 120°F.

Other Precautions Do not take internally. Avoid eye and prolonged skin contact.

Prepared By [signature] **Title** Corporate Toxicologist **Date** 2/3/82

NALCO CHEMICAL COMPANY
2901 BUTTERFIELD ROAD • OAK BROOK, ILLINOIS 60521

MATERIAL SAFETY DATA SHE.

Product Nalco 8365

NALCO CHEMICAL C. APANY
2901 BUTTERFIELD ROAD OAK BROOK, ILLINOIS 60521

SECTION 1 – PRODUCT IDENTIFICATION

Trade Name Nalco 8365 Formula No.

Synonyms An aqueous blend of organic polymers and organo phosphorous compounds

Chemical Family Organic

SECTION 2 – HAZARDOUS INGREDIENTS

MATERIAL OR COMPONENT	%
Entire product is alkaline	

SECTION 3 – PHYSICAL PROPERTIES

Boiling Point, 760 MM HG	Freeze Point 22°F
Specific Gravity (H_2O=1) 1.19 ± 0.02 @ 70°F	Vapor Pressure
Vapor Density (Air=1)	Solubility in H_2O, % By Wt. Soluble
% Volatiles By Vol.	Viscosity 12 ± 4 cps @ 70°F

Appearance and Odor

Yellow liquid, mild organic odor pH 13 ± .3

SECTION 4 – FLAMMABILITY AND EXPLOSIVE PROPERTIES

Flash Point (Test Method)

None

Flammable Limits in Air, % By Vol.	Lower		Upper	

Extinguishing Media

CO_2, dry chemical, alcohol foam, water fog

Special Fire Fighting Procedures

None

Unusual Fire and Explosion Hazard

None

SECTION 5 – HEALTH HAZARD DATA

Threshold Limit Value

None established for the product.

Effects of Overexposure

May cause severe irritation due to alkalinity.

EMERGENCY AND FIRST AID PROCEDURES

Eyes

Immediately flush with water for at least 15 minutes. Call a physician.

Skin

Immediately flush with water for at least 15 minutes. Call a physician.

Ingestion

Do not induce vomiting. Give large amounts of water. Call a physician.

Inhalation

(Continued on Reverse Side)

NALCO CHEMICAL COMPANY
2901 BUTTERFIELD ROAD • OAK BROOK, ILLINOIS 60521

SECTION 6 – REACTIVITY DATA

Stability: Stable ☒ Unstable ☐ Conditions to Avoid

Materials to Avoid: Acids

Hazardous Decomposition Products: None

Hazardous Polymerization: Will Not Occur ☒ May Occur ☐ Conditions to Avoid

SECTION 7 – SPILL OR LEAK PROCEDURES

Steps to Take in Case Material is Released or Spilled: Contain with absorbent material.

Waste Disposal Method: Consult local, state and federal regulations for appropriate disposal.

SECTION 8 – SPECIAL PROTECTION INFORMATION

Type of Respiratory Protection Required: None

Ventilation: Local Exhaust ☐; Mechanical (General) ☐; Special (Specify) _____ Other (Specify) _____

Protective Gloves: Rubber, gauntlets Eye Protection: Goggles

Other Protective Equipment: Impervious apron

SECTION 9 – SPECIAL PRECAUTIONS

Handling and Storage Precaution: Do not take internally. Avoid eye and skin contact. Remove and launder contaminated clothing before reuse.

Other Precautions: None

Prepared By: [signature] Title: Corporate Toxicologist Date: 12/8/81

MATERIAL SAFETY DATA SHEET

Product Nalco 7309

NALCO CHEMICAL COMPANY
2901 BUTTERFIELD ROAD OAK BROOK ILLINOIS 60521

SECTION 1 – PRODUCT IDENTIFICATION

Trade Name: Nalco 7309 Formula No.:

Synonyms: Oil remover/degreaser

Chemical Family: Organic

SECTION 2 – HAZARDOUS INGREDIENTS

MATERIAL OR COMPONENT	%
None	

SECTION 3 – PHYSICAL PROPERTIES

Boiling Point, 760 MM HG	Melting Point
Specific Gravity (H_2O=1) 1.02 @ 60°F	Vapor Pressure
Vapor Density (Air=1)	Solubility in H_2O, % By Wt. Completely
% Volatiles By Vol.	Evaporation Rate (Butyl Acetate=1)
Appearance and Odor Clear liquid, odorless	pH (neat)= 6.4

SECTION 4 – FLAMMABILITY AND EXPLOSIVE PROPERTIES

Flash Point (Test Method)
None (PMCC)

Flammable Limits in Air, % By Vol.	Lower		Upper	

Extinguishing Media
CO_2, dry chemical, water fog

Special Fire Fighting Procedures
None

Unusual Fire and Explosion Hazard
None

SECTION 5 – HEALTH HAZARD DATA

Threshold Limit Value
None established for the product.

Effects of Overexposure
Possible skin and eye irritation.

EMERGENCY AND FIRST AID PROCEDURES

Eyes
Wash with water for 15 minutes. Call a physician.

Skin
Wash the plenty of water.

Ingestion
Induce vomiting. Give water. Call a physician.

Inhalation
Treat symptomatically.

(Continued on Reverse Side)

MATERIAL SAFETY DATA SHEET

Product Nalco 7309

NALCO CHEMICAL COMPANY
2901 BUTTERFIELD ROAD • OAK BROOK, ILLINOIS 60521

SECTION 6 – REACTIVITY DATA

Stability: Stable ☒ Unstable ☐ Conditions to Avoid

Materials to Avoid: None

Hazardous Decomposition Products: None

Hazardous Polymerization: Will Not Occur ☒ May Occur ☐ Conditions to Avoid

SECTION 7 – SPILL OR LEAK PROCEDURES

Steps to Take in Case Material is Released or Spilled: Wash down with water.

Waste Disposal Method: No special method.

SECTION 8 – SPECIAL PROTECTION INFORMATION

Type of Respiratory Protection Required: None normally required

Ventilation: Local Exhaust ☐; Mechanical (General) ☐; Special (Specify) _____ Other (Specify) _____

Protective Gloves: Rubber Eye Protection: Safety goggles

Other Protective Equipment: None

SECTION 9 – SPECIAL PRECAUTIONS

Handling and Storage Precaution: Keep container closed when not in use.

Other Precautions: Do not take internally. Avoid eye and skin contact.

Prepared By [signature] Title Corporate Toxicologist Date 4/8/82

Similar to Form OSHA-20 EMERGENCY TELEPHONE NUMBER – (312) 920-1510

MATERIAL SAFETY DATA SHEET

Product Nalco 7460

NALCO CHEMICAL COMPANY
2901 BUTTERFIELD ROAD | OAK BROOK, ILLINOIS 60521

Trade Name Nalco 7460 Formula No.

Synonyms A hydrocarbon based antifoam

Chemical Family Organic

SECTION 2 – HAZARDOUS INGREDIENTS

MATERIAL OR COMPONENT	%
Petroleum Distillate	95

SECTION 3 – PHYSICAL PROPERTIES

Boiling Point, 760 MM HG	Melting Point
Specific Gravity (H_2O=1) 0.85 @ 70°F	Vapor Pressure
Vapor Density (Air=1)	Solubility in H_2O, % By Wt. Insoluble
% Volatiles By Vol.	Evaporation Rate (Butyl Acetate=1)

Appearance and Odor
Opaque tan liquid with hydrocarbon odor

SECTION 4 – FLAMMABILITY AND EXPLOSIVE PROPERTIES

Flash Point (Test Method)
>350°F (COC)

Flammable Limits in Air, % By Vol.	Lower		Upper	

Extinguishing Media
Water, Foam, dry chemical

Special Fire Fighting Procedures
Wear air supplied rescue equipment in enclosed areas. Cool exposed container with water.

Unusual Fire and Explosion Hazard
None

SECTION 5 – HEALTH HAZARD DATA

Threshold Limit Value
None for product. Oil mist = 5 mg/m^3

Effects of Overexposure
Causes skin and eye irritation expecially upon repeated or prolonged contact.

EMERGENCY AND FIRST AID PROCEDURES

Eyes
Flush with water for at least 15 minutes. Call a physician.

Skin
Wash with mild soap and rinse with plenty of water.

Ingestion
Do not induce vomiting. Call a physician.

Inhalation
Remove to safety. treat symptomatically.

(Continued on Reverse Side)

MATERIAL SAFETY DATA SHEET

Nalco 7460

Product

NALCO CHEMICAL COMPANY
2901 BUTTERFIELD ROAD • OAK BROOK, ILLINOIS 60521

SECTION 6 – REACTIVITY DATA

Stability: Stable ☒ Unstable ☐ **Conditions to Avoid**

Materials to Avoid Strong oxidants

Hazardous Decomposition Products CO in case of incomplete combustion

Hazardous Polymerization: Will Not Occur ☒ May Occur ☐ **Conditions to Avoid**

SECTION 7 – SPILL OR LEAK PROCEDURES

Steps to Take in Case Material is Released or Spilled Contain on absorbent material

Waste Disposal Method Incinerate absorbed material. Keep petroleum products out of streams and waterways.

SECTION 8 – SPECIAL PROTECTION INFORMATION

Type of Respiratory Protection Required Normally not needed

Ventilation: Local Exhaust ☐; Mechanical (General) ☐; Special (Specify) _____ Other (Specify) _____

Protective Gloves Rubber **Eye Protection** Goggles

Other Protective Equipment Oil imprevious apron

SECTION 9 – SPECIAL PRECAUTIONS

Handling and Storage Precaution Keep container closed when not in use. Store in cool area. Avoid eye and skin contact. Avoid breathing aerosol or mist.

Other Precautions Launder contaminated clothing before reuse.

Prepared By [signature] **Title** Corporate Toxicologist **Date** 8-11-80

Similar to Form OSHA-20

EMERGENCY TELEPHONE NUMBER – (312) 920-1510

Koppers Company, Inc., Organic Materials Group
P.O. Box 96150, Houston, TX 77015
Telephone 713-453-5446

KOPPERS

October 4, 1983

Copy to TDWR 11-21-83

US EPA Region VI
1201 Elm Street
Dallas, Texas 75270

file

1. The owner of the facility is:

   Koppers Co., Inc.
   Koppers Bldg.
   Pittsburgh, Pa. 15219

TXD 000808901
TXD 030802343

2. The Address of the facility is:

   Koppers Co., Inc. O.M.G.
   Houston, Texas 77213
   713/453-5446

3. The incident occurred September 22, 1983 at 6:30 AM.

4. The incident consisted of a steam explosion in T-301 and a spill of 30,760 gallons of Refined Chemical Oil.

5. There were no injuries.

6. The most serious threat to human health was that the material could have hit a flame source and ignited causing a serious fire. In addition to the fire threat, Refined Chemical Oil contains coal tar derivatives and phenolic compounds that could have reached the Houston Ship Channel and been detrimental to the water quality had the spill plan not been followed.

7. We currently estimate that 400 cubic yards of oil saturated dirt will be removed and disposed of at the Browning-Ferris/Cecos International Calcasieu Disposal Facility, West Lake, La. Facility # LAD000618256.

J. A. Carnes